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EXAMINER

ALAM, SHAHID AL

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 15

Application Number: 09/945,438
Filing Date: August 31, 2001
Appellant(s): NAKOS ET AL.

Christian A. Nicholes
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 22 September 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) *Grouping of Claims*

Appellant's brief includes a statement that claims 1 – 9 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

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(9) Prior Art of Record

6,240,416

IMMON et al.

05-2001

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 – 4, and 6 – 9 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Patent Number 6,240,416 issued to William H. Immon et al ("Immon").

With respect to claim 1, Immon teaches a method for managing a database system including one or more database servers, the method comprising the steps of:

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executing, at a console, an integrated management module configured to manage at least two of the following layers in the database system: a database application layer, a database server layer, an operating system layer, and a hardware layer; and interacting with a user interface provided by said integrated management module to change operational parameters of said at least two layers systems (see Fig. 7, the database systems or applications such as DB2, Oracle, Sybase, SQL server as disclosed in Figure 7 employ different types of hardware and/or software or warrants different system requirements by being provided by different vendors; col. 9, lines 19-21). See also col. 5, line 4245, col. 6, lines 7-15, and col. 6, line 32 col. 7, line 23. See also technical metadata in col. 6, lines 57-60.

With respect to claim 2, Immon teaches a method as claimed wherein the database server layer includes one or more database servers; the operating system layer includes one or more operating systems that reside on machines that are executing said database servers; the integrated management module is configured to manage the one or more database servers and one or more operating systems (see Fig. 7, the database systems or applications such as DB2, Oracle, Sybase, SQL server as disclosed in Figure 7 employ different types of hardware and/or software or warrants different system requirements by being provided by different vendors); and the step of interacting with the user interface (Fig. 7, 702) provided by said integrated management module changes operational parameters of said one or more database servers and said one or more operating systems (Fig. 7, 702; col. 9, lines 19-21).

With respect to claim 3, Immon teaches a method as claimed wherein the system includes one or more database clients; said database clients are executing one or more database applications (see Fig. 7, the database systems or applications such as DB2, Oracle, Sybase, SQL server as disclosed in Figure 7 employ different types of hardware and/or software or warrants different system requirements by being provided by different vendors) that comprise said database application layer; and said integrated management module is further configured to manage said one or more database applications.

With respect to claim 4, Immon teaches a method as claimed wherein at least one hardware subsystem (see Fig. 7, the database systems or applications such as DB2, Oracle, Sybase, SQL server as disclosed in Figure 7 employ different types of hardware) is used to execute said one or more database servers; and said integrated management module (Fig. 7, 702, 704) is further configured to manage said at least one hardware subsystem.

With respect to claim 6, Immon teaches a method as claimed wherein one or more database servers reside on a local network (Fig. 3) and said console does not belong to said local network (Fig. 7, 702). Fig. 7 is another depiction of Fig. 3.

With respect to claim 7, Immon teaches a method as claimed wherein the console (Fig. 7, 702) is connected to a wide area network and said local network is connected to said wide area network (col. 4, lines 60-61), wherein said console manages said one or more database servers (col. 7, lines 20-22) through messages communicated through said wide area network.

With respect to claim 8, Immon teaches a method as claimed wherein the console (Fig. 7, 702) manages said one or more database servers by messages sent over a dial up connection (a dial connection is an inherent feature of a network shown in Fig. 3; see MPEP 2144 below) established between said console and said local network.

[MPEP 2144.01- Implicit Disclosure: "[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968) (A process for catalytically producing carbon disulfide by reacting sulfur vapor and methane in the presence of charcoal at a temperature of "about 750-830C" was found to be met by a reference which expressly taught the same process at 700C because the reference recognized the possibility of using temperatures greater than 750C. The reference disclosed that catalytic processes for converting methane with sulfur vapors into carbon disulfide at temperatures greater than 750C (albeit without charcoal) was known, and that 700C was "much lower than had previously proved feasible."); In re Lamberti, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976) (Reference disclosure of a compound where the R-S-R ϕ portion has "at least one methylene group attached to the sulfur atom" implies that the other R group attached to the sulfur atom can be other than methylene and therefore suggests asymmetric dialkyl moieties.).]

With respect to claim 9, Immon teaches a method as claimed wherein said console (Fig. 7, 702) manages said one or more database servers (col. 7, lines 20-22) and said one or more operating systems (col. 7, lines 17-18) by changing metadata (Fig. 7, 704; col. 3, lines 27-31), stored in a centralized repository (Fig. 7, 704) that resides on a device (Fig. 7, 703 and 704) connected to said wide area network, wherein said metadata includes data that reflects configuration parameters of said one or more database servers and said one or more operating systems, wherein changes made to said metadata in said centralized repository are propagated over said wide area network to devices on said local network (col. 4, lines 60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Immon.

With respect to claim 5, Immon does not explicitly indicate the use of RAID as storage. Immon discloses an apparatus for management of metadata in a network of computers wherein various nodes of the network employ different types of database applications, database servers, database management applications and different networks. Immon specifically teaches an option of storing the metadata at a particular node of the network (Fig. 7, 704, "the system record"). The system records as disclosed by Immon are robust in the sense they encompass various database system information including the information regarding a wide variety of storage system types. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a RAID subsystem in Immon because Immon could easily update the metadata in element 704 of Fig. 7 without incurring much overhead and yet manage the newly added storage. The person of ordinary skill would be motivated to add a RAID subsystem make to enhance its versatility. See Immon, "Technical metadata", col. 5761. The rationale is that a minimal change in centralized metadata would make the system robust and the person of ordinary skill would be motivated because there is no overhead and a minimal overhead to be incurred. See Immon, col. 2, lines 18-23. In fact, the change in metadata requires a minimal change to enterprise application or software.

(11) Response to Argument

Appellant's argument regarding the rejection of claims 1 – 9:

Argument No. 1: The Examiner has failed to make a prima facie case of obviousness (Page 6, The Third Paragraph and Page 14, The Second Paragraph, Brief).

Argument No. 2: The Examiner has failed to adequately address the issue of motivation to combine (Page 13, The Fourth Paragraph, Brief).

Argument No. 3: Immon does not teach or suggest that workstation 702 manages source 701 by changing operational parameters of source 701 (Page 8, The First Paragraph, Brief).

Argument No. 4: There is absolutely nothing in Immon that suggests the metadata comprise operational parameters of at least two of a database application layer, a database server layer, an operating system layer, and a hardware layer (Page 8, The Third Paragraph, Brief).

Examiner's Response to Arguments:

In response to Argument No. 1:

In response to applicant's argument on page 6, a prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. Once such a case is established, it is incumbent upon appellant to go forward with objective evidence of unobviousness. In re Fielder, 471 F.2d 640, 176 USPQ 300 (CCPA 1973).

In response to Argument No. 2:

In response to Appellant's argument that "Examiner has failed to adequately address the issue of motivation to combine." The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Immon discloses an apparatus for management of metadata in a network of computers wherein various nodes of the network employ different types of database applications, database servers, database management applications and different networks. Immon specifically teaches an option of storing the metadata at a particular node of the network (Fig. 7, 704, "the system record"). The system records as disclosed by Immon are robust in the sense they encompass various database system information including the information regarding a wide variety of storage system types. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a RAID subsystem in Immon because Immon could easily update the metadata in element 704 of Fig. 7 without incurring much overhead and yet manage the newly added storage. The person of ordinary skill would be motivated to add a RAID subsystem make to enhance its versatility. See Immon, "Technical metadata", col. 5761. The rationale is that a minimal change in centralized metadata would make the

system robust and the person of ordinary skill would be motivated because there is no overhead and a minimal overhead to be incurred. See Immon, col. 2, lines 18-23. In fact, the change in metadata requires a minimal change to enterprise application or software.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification.

MPEP 2111 Claim Interpretation; Broadest Reasonable Interpretation

During patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). The court found that applicant was advocating ... the impermissible importation of subject matter from the specification into the claim.). See also In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (The court held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant's specification.").

The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999)

In response to argument No. 3:

As per Appellant's argument that Immon does not teach or suggest that workstation 702 manages source 701 by changing operational parameters of source 701.

In accordance with MPEP 2111 the Appellants do not claim what they have argued: Claim 1 is directed to an integrated management console that is configured to manage two of the following four computing system components: a database application layer, a database server layer, an operating system layer, and a hardware layer. Claim 1 does not clearly point out as to which two of the four computing system layers are being managed. **The claim indicates that parameters are being configured but does not clearly point out as to what computing system level the parameters belong to.**

To implement the invention as recited in claim 1, one might choose a database application layer and a database server layer, and would not have to be concerned about the operating system layer, and the hardware layer. How would the selection of these two layers address the issue cost/overhead generated by operating system calls required for massive I/O operations for a OLTP system? The claim language merely recites an integrated management but does not identify what is being managed. In other words, the claim does not point out what specific computing system level the

manageable parameters belong to wherein the levels are: a database application layer level, a database server layer level, an operating system layer level, or a hardware layer level.

Immon's teaching of Pine Cone Data Warehouse Administrators Work Station (702) as in Figure 7 and Meta Exchange manager as in column 8, line 25 – column 9, line 21, clearly teaches that workstation 702 manages source 701 by changing operational parameters of source 701.

Immon meets the requirement of generalized management as claimed since no specific computing system level has been identified in the claims.

In this instance, the claim does not clearly point out as to what specific computing system level (i.e., a database application layer level, a database server layer level, an operating system layer level, or a hardware layer level), the parameters are being managed.

In response to argument number 4:

The Appellants' argue that there is absolutely nothing in Immon that suggests the metadata comprise operational parameters of at least two of a database application layer, a database server layer, an operating system layer, and a hardware layer.

The Applicants relied on the following sections:

"The records that exist under the control of the server are of two general types--technical and business. **Technical metadata includes a wide variety of descriptive information such as table and attribute description, table relationships, network descriptions, and so forth.** Business metadata includes such things as subject area descriptions, business definitions, organization descriptions, and so forth. The actual database is controlled by the DBMS that is housed in the server. The database can be a standard DBMS such as DB2, Oracle, Informix, Sybase, SQL Server, etc.

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Even if the claims identify two specific layers, the examiner respectfully submits that the metadata in Immon is not merely descriptive but is being used in configuring at least two computing system level in the following section, which the Applicants have failed to appreciate (see col. 6, line 32 through col. 7, line 22):

There is another usage of distributed metadata that may be confused with distributed metadata under a system of record and that case is the usage of distributed metadata during token based distributed management of deadlock. These two cases will be referred as deadlock metadata and system of record metadata for the purposes of the ensuing discussion. There are some significant differences in the environment, intent, and composition of deadlock metadata and system of record metadata. These differences are as follows:

(1) Deadlock metadata is system specific control data **for the purpose of managing one aspect of transaction processing** (this implies that Immon is aware of I/O cost of OLTP); system of record metadata is metadata that controls enterprise access and **analysis of data** (this implies that Immon is also aware of processing in a data warehouse or DSS).

(2) Deadlock metadata exists for the purpose of controlling system performance; system of record metadata exists for the purpose of managing access and analysis of the metadata.


(3) Deadlock metadata operates under servers that execute under the same operating system; system of record metadata operates across any operating system.

(4) Deadlock metadata operates under servers that execute under the same DBMS; system of record metadata operates across any Database Management System (DBMS).

In view of the above, the examiner belief that the Appellants did not fully appreciate the teachings of the Immon reference and thus failed to locate pertinent teachings.

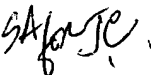
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Shahid Al Alam
Primary Examiner
Art Unit 2172

March 6, 2004

Conferees

Jean Correlielus, Primary Examiner, Art Unit 2172 

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